

WHAT IS CLAIMED IS:

1. An iron type golf club set of  $n$  ( $n$ : an integer equal to or more than three) numbers of iron type golf clubs having different head loft angles, wherein

the head comprises a face plate, and a head main body provided with a face receiving portion supporting a peripheral edge portion of the face plate around an opening portion,

the face plate has one thin portion having the smallest thickness and at least one thick portion having a larger thickness than the thin portion, in a free deflection area in which a back surface faces to the opening portion, and

in a standard state where the head is mounted on a horizontal plane by a specified lie angle and loft angle, a horizontal distance  $X_i$  along a hitting face between a face center and a center of figure of the thin portion (in this case, the horizontal distance  $X_i$  is negative in the case where the center of figure exists on a toe side rather than the face center, and is positive in the case where the center of figure exists on a heel side. Further, reference symbol  $i$  is a natural number of 1 to  $n$  and is given in a sequential order from the club having the smallest loft angle in the set) satisfies the following conditions (1) and (2):

(1)  $X_1 \leq X_2 \leq \dots \leq X_n$ ; and

(2)  $X_1 < X_n$ .

2. The iron type golf club set according to claim 1, wherein

in the standard state, a horizontal distance  $S_i$  along a hitting face between the face center and a sweet spot which is a foot of a normal line drawn from the center of gravity of the head to the hitting face (in this case, the horizontal distance  $S_i$  is negative in the case where the sweet spot exists on a toe side rather than the face center, and is positive in the case where the sweet spot exists on a heel side. Further, reference symbol  $i$  is a natural number of 1 to  $n$  and is given in a sequential order from the club having the smallest loft angle in the set) satisfies the following conditions (3) and (4):

(3)  $S_1 \leq S_2 \leq \dots \leq S_n$ ; and

(4)  $S_1 < S_n$ .

3. The iron type golf club set according to claim 1, wherein

a depth  $L_i$  ( $i$  is a natural number of 1 to  $n$ , and is attached in a sequential order from the club having the smallest loft angle in the set) of center of gravity

corresponding to a distance between the center of gravity of the head and the sweet spot satisfies the following conditions (5) and (6):

(5)  $L1 \geq \dots \geq L2 \geq \dots \geq Ln$ ; and

(6)  $L1 > Ln$ .

4. The iron type golf club set according to claim 1, wherein

the thin portion occupies 15 to 70% of the free deflection area.

5. The iron type golf club set according to claim 1, wherein

the thickness of the thin portion is between 1.2 and 2.0 mm, and the thickness of the thick portion is between 2.0 and 4.0 mm, and

the difference between the thickness of the thick portion and the thickness of the thin portion is between 0.2 and 1.5 mm.

6. The iron type golf club set according to claim 1, wherein

the thin portion is formed in an approximately trapezoidal shape in which a horizontal length  $Wb$  on a side of the sole portion is longer than a horizontal

length  $W_a$  on a side of the top portion.

7. The iron type golf club set according to claim 1, wherein

the thin portion is formed in an approximately trapezoidal shape in which the horizontal length  $W_b$  on the side of the sole portion is longer than the horizontal length  $W_a$  on the side of the top portion, and

a ratio ( $W_b/W_a$ ) of the lengths is between 1.0 and 4.5.